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Science and Technology for Tomorrow's Aerospace Forces

Success Story

AIR VEHICLES SCIENTISTS RECEIVE THE PERKINS IN-HOUSE ENGINEERING AWARD



Dr. David B. Doman and Dr. Anhtuan Ngo of the Control Theory Optimization Branch, Control Sciences Division, jointly received the Dr. Courtland D. Perkins In-House Engineering Award for their collaborative work on the adaptive reconfigurable control (ARC) law for the X-33. The ARC-X33 design increased the efficiency of the control system computational needs, requiring only a 25% increase in central processing unit usage over baseline. National Aeronautics and Space Administration (NASA) engineers found the X-33 control law, designed by Dr. Doman and Dr. Ngo, to be a highly promising candidate for transition to the next generation reusable launch vehicle (RLV).



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Accomplishment

At the invitation from NASA-Marshall program managers, Drs. Doman and Ngo developed one of the advanced control law designs for the sub-orbital X-33, an unmanned RLV designed to demonstrate advanced technologies that will dramatically increase launch vehicle reliability and affordability. The methodology chosen by Drs. Doman and Ngo addressed both Air Force and NASA objectives for operability and safety.

Background

The directorate established the Dr. Perkins In-House Engineering Award in 1990 to honor engineers and scientists making the most significant in-house contributions to aerospace technology. The award seeks to perpetuate the spirit of excellence and innovation exemplified by Dr. Courtland D. Perkins throughout his distinguished career with the Air Force and as President of the National Academy of Engineering.

Air Vehicles
Awards and Recognition

Additional information

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